Summer Institute on Teaching Mathematics and Science in English Cyprus, June 2006 Dorit Kaufman Stony Brook University Stony Brook, NY 11794-4376

Crispy Crackers

Objective

A cooperative learning inquiry-based approach to explore learning and teaching processes with an emphasis on reflection, observation, and monitoring of group problem solving processes. This activity engages teachers in discussion of social, economic, and environmental issues, advertising, artistic design, and cultural perspectives. The activity serves as a springboard to the development of interdisciplinary curricular modules for the acquisition of language, mathematical, scientific, and social sciences concepts.

Materials per group

Four types of crackers large newsprint sheets or transparencies.

The challenge: Select the best cracker

A. Work cooperatively as a group and follow these steps:

- i. Select the set of criteria which will help you reach a consensus.
- ii. Analyze and evaluate the data based upon these criteria.
- iii. Draw your conclusions.
- iv. Reflect on the problem solving process (see below) and prepare a **graphic** presentation

B: Reflecting on the process:

- 1. Describe the challenge
- 2. Describe the process of criteria selection
- 3. Describe the challenges your group encountered in reaching conclusions.
- 4. Summarize your conclusions graphically
- 5. Discuss other avenues your group might have selected to reach a solution?
- 6. Describe the group's dynamics:
 - i. What recognizable roles did group members take?
 - ii. What contributions did group members make?
 - iii. Discuss ways to engage group members and encourage more active participation

C: Present your findings graphically.

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The Thematic Curricular Module

Use the Crispy Crackers activity as a starting point for developing your lesson plan. Consider learners' age and diverse backgrounds and maximize exploration opportunities across disciplines. Use the Lesson Planning From.

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